FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant

VPDES PERMIT NUMBER: VA0025020

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

SCREENING INFORMATION

This application is divided into sections. Section A pertains to all applicants. The applicability of Sections B, C and D depends on your facility's sewage sludge use or disposal practices. The information provided on this page will help you determine which sections to fill out.

1. All applicants must complete Section A (General Information).

2. Will this facility generate sewage sludge? X Yes __No

   Does this facility derive a material from sewage sludge? __Yes X No

   If you answered "Yes" to either, complete Section B (Generation Of Sewage Sludge Or Preparation Of A Material Derived From Sewage Sludge).

3. Does this facility apply sewage sludge to the land? __Yes X No

   Is sewage sludge from this facility applied to the land? X Yes __No

   If you answered "No" to both questions above, skip Section C.

   If you answered "Yes" to either, answer the following three questions:

   a. Does the sewage sludge from this facility meet the ceiling concentrations, pollutant concentrations, Class A pathogen reduction requirements and one of the vector attraction reduction requirements 1-8, as identified in the instructions?
   __Yes X No

   b. Is sewage sludge from this facility to be placed in a bag or other container for sale or give-away for application to the land? __Yes X No

   c. Is sewage sludge from this facility be sent to another facility for treatment or blending? __Yes X No

   If you answered "No" to all three, complete Section C (Land Application Of Bulk Sewage Sludge).

   If you answered "Yes" to a, b or c, skip Section C.

4. Do you own or operate a surface disposal site? __Yes X No

   If "Yes", complete Section D (Surface Disposal).

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant

VPDES PERMIT NUMBER:VA0025020

SECTION A. GENERAL INFORMATION

All applicants must complete this section.

1. **Facility Information.**
   a. Facility name: **Western Virginia Water Authority Water Pollution Control Plant**
   b. Contact person: **S. Scott Shirley**
      Title: **Director of Wastewater Operations**
      Phone: **(540) 853-2491**
   c. Mailing address:
      Street or P.O. Box: **1502 Brownlee Avenue S.E.**
      City or Town: **Roanoke** State: **Virginia** Zip: **24014**
   d. Facility location:
      Street or Route #: **Same as above**
      County:
      City or Town: State: Zip:
   e. Is this facility a Class I sludge management facility? __X__ Yes ___ No
   f. Facility design flow rate: ____55____ mgd
   g. Total population served: ___~248,163
   h. Indicate the type of facility:
      __X__ Publicly owned treatment works (POTW)
      ___ Privately owned treatment works
      ___ Federally owned treatment works
      ___ Blending or treatment operation
      ___ Surface disposal site
      ___ Other (describe):

2. **Applicant Information.** If the applicant is different from the above, provide the following:
   a. Applicant name: **same as above**
   b. Mailing address:
      Street or P.O. Box:
      City or Town: _____ State: _____ Zip:
   c. Contact person:
      Title:
      Phone: ( )
   d. Is the applicant the owner or operator (or both) of this facility?
      __X__ owner __X__ operator
   e. Should correspondence regarding this permit be directed to the facility or the applicant? (Check one)
      __X__ facility _____ applicant

3. **Permit Information.**
   a. Facility's VPDES permit number (if applicable): **VA0025020**
   b. List on this form or an attachment, all other federal, state or local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:

Permit Number:	Type of Permit:
VAL025020	**NPDES - Sludge**

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant

VPDES PERMIT NUMBER: VA0025020

4. **Indian Country**. Does any generation, treatment, storage, application to land or disposal of sewage sludge from this facility occur in Indian Country? ___Yes _X_No If yes, describe:

5. **Topographic Map**. Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility: **See Site Location Map and Facility Layout Map**
   a. Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed.
   b. Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries.

6. **Line Drawing**. Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction. **See Process Flow Diagram-Solids**

7. **Contractor Information**. Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? _X_Yes __No
   If yes, provide the following for each contractor (attach additional pages if necessary).
   Name: **Bionomics Incorporated**
   Mailing address:
   Street or P.O. Box: **516 Roundtree Road**
   City or Town: **Charlotte** State: **NC** Zip: **28217**
   Phone: **(704) 529-0000**
   Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge: **VDH BUR 79 – Franklin, VDH BUR 114 – Bedford** If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s).

8. **Pollutant Concentrations**. Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq. for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old. **See Attachment A.8**

POLLUTANT	CONCENTRATION (mg/kg dry weight)	SAMPLE DATE	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
Arsenic				
Cadmium				
Chromium				
Copper				
Lead				
Mercury				
Molybdenum				
Nickel				
Selenium				
Zinc				

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant

VPDES PERMIT NUMBER: VA0025020

9. **Certification.** Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:

__X__ Section A (General Information)
__X__ Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)
__X__ Section C (Land Application of Bulk Sewage Sludge)
____ Section D (Surface Disposal)

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name and official title: **Michael T. McEvoy, Executive Director, Wastewater Services**

Signature Michael T. McEvoy Date Signed 8/20/08.

Telephone number **(540) 853-1449**

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant

VPDES PERMIT NUMBER: VA0025020

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. **Amount Generated On Site.**
Total dry metric tons per 365-day period generated at your facility: **5,673** dry metric tons

2. **Amount Received from Off Site.** If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
   a. Facility name: **See Attachment B.2**
   b. Contact Person:
      Title:
      Phone ( )
   c. Mailing address:
      Street or P.O. Box:
      City or Town:_____ State:_____ Zip:
   d. Facility location:
      (not P.O. Box)
   e. Total dry metric tons per 365-day period received from this facility:_____ dry metric tons
   f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics:

3. **Treatment Provided at Your Facility.**
   a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
      __Class A _X_Class B __Neither or unknown
   b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: **Anaerobic Digestion**

   c. Which vector attraction reduction option is met for the sewage sludge at your facility?
      _X_ Option 1 (Minimum 38 percent reduction in volatile solids)
      ___ Option 2 (Anaerobic process, with bench-scale demonstration)
      ___ Option 3 (Aerobic process, with bench-scale demonstration)
      ___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
      ___ Option 5 (Aerobic processes plus raised temperature)
      ___ Option 6 (Raise pH to 12 and retain at 11.5)
      ___ Option 7 (75 percent solids with no unstabilized solids)
      ___ Option 8 (90 percent solids with unstabilized solids)
      ___ None or unknown

   d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: **Anaerobic Digestion**

   e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: **N/A**

4. **Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge). N/A**

(If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)

a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land: _____ dry metric tons

b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away? __Yes __No

5. **Sale or Give-Away in a Bag or Other Container for Application to the Land. N/A**

(Complete this question if you place sewage sludge in a bag or other container for sale or give-away prior to land application. Skip this question if sewage sludge is covered in Question 4.)

a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land:_____ dry metric tons

b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

6. **Shipment Off Site for Treatment or Blending. N/A**

(Complete this question if sewage sludge from your facility is sent to another facility that provides treatment or blending. This question does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this question if the sewage sludge is covered in Questions 4 or 5. If you send sewage sludge to more than one facility, attach additional sheets as necessary.)

a. Receiving facility name:

b. Facility contact:
Title:
Phone: ( )

c. Mailing address:
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility: _____ dry metric tons

e. List, on this form or an attachment, the receiving facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the receiving facility's sewage sludge use or disposal practices:

Permit Number:	Type of Permit:
_____	
_____	

f. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility? __Yes __No
Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?
__Class A __Class B __Neither or unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge:

g. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? __Yes __No
Which vector attraction reduction option is met for the sewage sludge at the receiving facility?
__ Option 1 (Minimum 38 percent reduction in volatile solids)
__ Option 2 (Anaerobic process, with bench-scale demonstration)
__ Option 3 (Aerobic process, with bench-scale demonstration)
__ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
__ Option 5 (Aerobic processes plus raised temperature)
__ Option 6 (Raise pH to 12 and retain at 11.5)
__ Option 7 (75 percent solids with no unstabilized solids)
__ Option 8 (90 percent solids with unstabilized solids)

___ None unknown

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge:

h. Does the receiving facility provide any additional treatment or blending not identified in f or g above? ___Yes ___No
If "Yes, describe, on this form or another sheet of paper, the treatment processes not identified in f or g above:

i. If you answered "Yes" to f., g or h above, attach a copy of any information you provide to the receiving facility to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G.

j Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? ___Yes ___No

If "Yes", provide a copy of all labels or notices that accompany the product being sold or given away.

k. Will the sewage sludge be transported to the receiving facility in a truck-mounted watertight tank normally used for such purposes? ___ Yes ___ No. If no, provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility.
Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported.

7. **Land Application of Bulk Sewage Sludge.**
(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6; complete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)

a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites: **5,673** dry metric tons

b. Do you identify all land application sites in Section C of this application? __Yes __No **N/A**
If no, submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions).

c. Are any land application sites located in States other than Virginia? ___Yes ___No **N/A**
If yes, describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

d. Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV). **N/A**

8. **Surface Disposal.** **N/A**
(Complete Question 8 if sewage sludge from your facility is placed on a surface disposal site.)

a. Total dry metric tons per 365-day period of sewage sludge from your facility placed on all surface disposal sites: _____ dry metric tons

b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?
___Yes ___No
If "No", answer questions c - g for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one surface disposal site, attach additional pages as necessary.

c. Site name or number:

d. Contact person:
Title:
Phone: ( )
Contact is: ___Site Owner ___Site operator

e. Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

f. Total dry metric tons per 365-day period of sewage sludge from your facility placed on this surface disposal site: _____ dry metric tons

g. List, on this form or an attachment, the surface disposal site VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the sewage sludge use or disposal practices at the surface disposal site:

Permit Number: Type of Permit:

_____

_____

9. **Incineration. N/A**

(Complete Question 9 if sewage sludge from your facility is fired in a sewage sludge incinerator.)

a. Total dry metric tons per 365-day period of sewage sludge from your facility fired in a sewage sludge incinerator _____ dry metric tons

b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired?
___ Yes ___No
If no, answer questions c - g for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one sewage sludge incinerator, attach additional pages as necessary.

c. Incinerator name or number:

d. Contact person:
Title:
Phone: ( )
Contact is: ___Incinerator Owner ___Incinerator Operator

e. Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

f. Total dry metric tons per 365-day period of sewage sludge from your facility fired in this sewage sludge incinerator: _____ dry metric tons

g. List on this form or an attachment the numbers of all other federal, state or local permits that regulate the firing of sewage sludge at this incinerator:

Permit Number: Type of Permit:

_____

_____

10. **Disposal in a Municipal Solid Waste Landfill. N/A**

(Complete Question 10 if sewage sludge from your facility is placed on a municipal solid waste landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.)

a. Landfill name:

b. Contact person:
Title:
Phone:
Contact is: ___Landfill Owner ___Landfill Operator

c. Mailing address.
Street or P.O. Box:
City or Town: State: Zip:

d. Landfill location.
Street or Route #:
County:
City or Town: State: Zip:

e. Total dry metric tons per 365-day period of sewage sludge placed in this municipal solid waste landfill:
_____ dry metric tons

f. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the operation of this municipal solid waste landfill:

Permit Number:	Type of Permit:

g. Does sewage sludge meet applicable requirements in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq., concerning the quality of materials disposed in a municipal solid waste landfill? ___Yes ___No

h. Does the municipal solid waste landfill comply with all applicable criteria set forth in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq.? ___Yes ___No

i. Will the vehicle bed or other container used to transport sewage sludge to the municipal solid waste landfill be watertight and covered?___Yes ___ No
Show the haul route(s) on a location map or briefly describe the route below and indicate the days of the week and time of the day sewage sludge will be transported.

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant

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SECTION C. LAND APPLICATION OF BULK SEWAGE SLUDGE

Complete this section for sewage sludge that is land applied unless any of the following conditions apply:

- *The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements and one of the vector attraction reduction options 1-8 (fill out B.4 instead) (EQ Sludge); or*
- *The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B.5 instead); or*
- *You provide the sewage sludge to another facility for treatment or blending (fill out B.6 instead).*

Complete Section C for every site on which the sewage sludge that you reported in B.7 is land applied.

1. Identification of Land Application Site.

a. Site name or number: **See Attachment C.1-2**

b. Site location (Complete i and ii)

i. Street or Route#:
County:
City or Town: _____ State: _____ Zip:

ii. Latitude:_____ Longitude:
Method of latitude/longitude determination
_____ USGS map _____ Filed survey _____ Other

c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location. **See BUR Site Books from Bionomics Inc. submitted previously to DEQ.**

2. Owner Information.

a. Are you the owner of this land application site? ___Yes **_X_** No

b. If no, provide the following information about the owner:
Name: **See Attachment C.1-2**
Street or P.O. Box:
City or Town: _____ State:_____ Zip:
Phone: ( )

3. Applier Information:

a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? ___Yes **_X_** No

b. If no, provide the following information for the person who applies the sewage sludge:
Name: **Bionomics Incorporated**
Street or P.O. Box: **516 Roundtree Road**
City or Town: **Charlotte** State: **NC** Zip: **28217-2133**
Phone: **(704) 529-0000**

c. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the person who applies sewage sludge to this land application site:

Permit Number:	Type of Permit:
VDH BUR 79	**VDH Biosolids Use Permit**
VDH BUR 114	**VDH Biosolids Use Permit**

4. Site Type. Identify the type of land application site from among the following:

_X_ Agricultural land ___Reclamation site ___Forest
___Public contact site ___Other. Describe

5. Vector Attraction Reduction.

Are any vector attraction reduction requirements met when sewage sludge is applied to the land application site?
____Yes **_X_** No If yes, answer a and b.

a. Indicate which vector attraction reduction option is met:
___ Option 9 (Injection below land surface)
___ Option 10 (Incorporation into soil within 6 hours)

b. Describe, on this form or on another sheet of paper, any treatment processes used at the land application site to reduce the vector attraction properties of sewage sludge:

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant

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Cumulative Loadings and Remaining Allotments.

(Complete Question 6 only if the sewage sludge applied to this site since July 20, 1993 is subject to the cumulative pollutant loading rates (CPLRs) - see instructions.)

a. Have you contacted DEQ or the permitting authority in the state where the sewage sludge subject to the CPLRs will be applied to ascertain whether bulk sewage sludge subject to the CPLRs has been applied to this site since July 20, 1993? X Yes __No
If no, sewage sludge subject to the CPLRs may not be applied to this site.
If yes, provide the following information:
Permitting authority: **Virginia Department of Health**
Contact person: **Dr. C.M. Sawyer, P.E.**
Phone:**(804) 786-1755**

b. Based upon this inquiry, has bulk sewage sludge subject to the CPLRs been applied to this site since July 20, 1993? __Yes X No If no, skip the rest of Question 6. If yes, answer questions c - e.

c. Site size, in hectares: N/A (one hectare = 2.471 acres)

d. Provide the following information for every facility other than yours that is sending or has sent sewage sludge subject to the CPLRs to this site since July 20, 1993. If more than one such facility sends sewage sludge to this site, attach additional pages as necessary.
Facility name: N/A
Facility contact:
Title:
Phone: ( )
Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

e. Provide the total loading and allotment remaining, in kg/hectare, for each of the following pollutants:

	Cumulative loading	Allotment remaining
Arsenic	N/A	
Cadmium	N/A	
Copper	N/A	
Lead	N/A	
Mercury	N/A	
Nickel	N/A	
Selenium	N/A	
Zinc	N/A	

Complete Questions 7-12 below only if you apply sewage sludge, or you are responsible for land application of sewage sludge. Information required by these questions may be prepared as attachments to this form. Skip the following questions if you contract land application to someone else (as indicated under Section A.7) who is responsible for the operation.

7. **Sludge Characterization.** Use the table below or a separate attachment, provide at least one analysis for each parameter. **N/A**

PCBs (mg/kg)
pH (S. U.)
Percent Solids (%)
Ammonium Nitrogen (mg/kg)
Nitrate Nitrogen (mg/kg)
Total Kjeldahl Nitrogen (mg/kg)
Total Phosphorus (mg/kg)
Total Potassium (mg/kg)
Alkalinity as $CaCO_3$* (mg/kg)

*Lime treated sludge (10% or more lime by dry weight) should be analyzed for percent $CaCO_3$.

8. **Storage Requirements. N/A**

Existing and proposed sludge storage facilities must provide an estimated annual sludge balance on a monthly basis incorporating such factors as storage capacity, sludge production and land application schedule. Include pertinent calculations justifying storage requirements.

Proposed sludge storage facilities must also provide the following information:

a. A sludge storage site layout on a 7.5 minute topographic quadrangle or other appropriate scaled map to show the following topographic features of the surrounding landscape to a distance of 0.25 mile. Clearly mark the property line.
   1) Water wells, abandoned or operating
   2) Surface waters
   3) Springs
   4) Public water supply(s)
   5) Sinkholes
   6) Underground and/or surface mines
   7) Mine pool (or other) surface water discharge points
   8) Mining spoil piles and mine dumps
   9) Quarry(s)
   10) Sand and gravel pits
   11) Gas and oil wells
   l2) Diversion ditch(s)
   13) Agricultural drainage ditch(s)
   14) Occupied dwellings, including industrial and commercial establishments
   15) Landfills or dumps
   16) Other unlined impoundments
   17) Septic tanks and drainfields
   18) Injection wells
   19) Rock outcrops

b. A topographic map of sufficient detail to clearly show the following information:
   1) Maximum and minimum percent slopes
   2) Depressions on the site that may collect water
   3) Drainageways that may attribute to rainfall run-on to or runoff from this site
   4) Portions of the site (if any) which are located with the 100-year floodplain and how the storage facility will be protected from flooding

c. Data and specifications for the storage facility lining material.

d. Plan and cross-sectional views of the storage facility.

e. Depth from the bottom of the storage facility to the seasonal high water table and separation distance to the permanent water table.

9. **Land Area Requirements**. Provide calculations justifying the land area requirements for land application of sewage sludge taking into consideration average soil productivity group, crop(s) to be grown and most limiting factor(s) of the sewage sludge, specifically Plant Available Nitrogen (PAN), Calcium Carbonate Equivalence (CCE), and metal loadings (CPLR sewage sludge only), where applicable. Relate PAN, CCE, and metal loadings to demonstrate the most limiting factor for land application. **N/A**

10. **Landowner Agreement Forms**. Provide a properly completed Sewage Sludge Application Agreement Form (attached) for each landowner if sewage sludge is to be applied onto land not owned by the applicant. **N/A**

11. **Ground Water Monitoring.**

Are any ground water monitoring data available for this land application site? ___Yes __No

If "Yes", submit the ground water monitoring data with this permit application. Also submit a written description of the well locations, approximate depth to ground water, and the ground water monitoring procedures used to obtain these data. **N/A**

12. **Land Application Site Information.**
(Complete Items a-d for sites receiving infrequent application - land application of sewage sludge up to the agronomic rate at a frequency of once in a 3 year period; complete Items a-h for sites receiving frequent application - land application of sewage sludge in excess of 70% the agronomic rate at a frequency greater than once in a 3 year period) N/A

a. Provide a general location map for each county which clearly indicates the location of all the land application sites.

b. For each land application site provide a site plan of sufficient detail to clearly show the concerned landscape features and associated buffer zones (See instructions). Provide a legend for each landscape feature and the net acreage for each field taking into account the proposed buffer zones.

c. In order to ensure that land application of bulk sewage sludge will not impact federally listed threatened or endangered species or federally designated critical habitat, the applicant must notify the field office of the U. S. Department of the Interior, Fish and Wildlife Service (FWS), by a letter, the proposed land application activities with the identification of the land application sites. The address and phone number of FWS are provided below.

U. S. Fish and Wildlife Service
Virginia Field Office
P. O. Box 480
White Marsh, VA 23183
TEL: (804)693-6694

Provide a copy of the notification letter with this application form.

d. Provide a soil survey map, preferably photographically based, with the field boundaries clearly marked. (A USDA-SCS soil survey map should be provided, if available.)
Provide a detailed legend for each soil survey map which uses accepted USDA-SCS descriptions of the typifying pedon for each soil series (soil type). Complex associations may be described as a range of characteristics. Soil descriptions shall include as a minimum the following information.

1) Soil symbol
2) Soil series, textural phase and slope range
3) Depth to seasonal high water table
4) Depth to bedrock
5) Estimated soil productivity group (for the proposed crop rotation)

Item e - h are required for sites receiving frequent application of sewage sludge

e. In order to verify the information provided in item d, characterize the soil at each land application site. Representative soil borings or test pits to a depth of five feet or to bedrock if shallower, are to be coordinated for the typifying pedon of each soil series (soil type). Soil descriptions shall include as a minimum the following information:

1) Soil symbol
2) Soil series, textural phase and slope range
3) Depth to seasonal high water table
4) Depth to bedrock
5) Estimated soil productivity group (for the proposed crop rotation)

f. Collect and analyze soil samples from each field, weighted to best represent each of the soil borings performed for Item e. Using the table below or a separate attachment, provide at least one analysis per sample for each of the following parameters.

Soil Organic Matter (%)
Soil pH (std. units)
Cation Exchange Capacity (meq/100g)
Total Nitrogen (ppm)
Organic Nitrogen (ppm)
Ammonia Nitrogen (ppm)
Nitrate Nitrogen (ppm)
Available Phosphorus (ppm)
Exchangeable Potassium (mg/100g)
Exchangeable Sodium (mg/100g)
Exchangeable Calcium (mg/100g)
Exchangeable Magnesium (mg/100g)
Arsenic (ppm)
Cadmium (ppm)
Copper (ppm)
Lead (ppm)
Mercury (ppm)
Molybdenum (ppm)
Nickel (ppm)
Selenium (ppm)
Zinc (ppm)
Manganese (ppm)
Particle Size Analysis or
USDA Textural Estimate (%)

g. Relate the crop nutrient needs to anticipated yields, soil productivity rating and the various fertilizer or nutrient sources from sludge and chemical fertilizers. Describe any specialized agronomic management practices which may be required as a result of high soil pH. If the sludge is expected to possess an unusually high CCE or other unusual properties, provide a description of any plant tissue testing, supplemental fertilization or intensive agronomic management practices which may be necessary.

h. Using a narrative format and referencing any related charts, describe the proposed cropping system. Show how the crop rotation and management will be coordinated with the design of the land application system. Include any supplemental fertilization program, soil testing and the coordination of tillage practices, planting and harvesting schedules and timing of land application.

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant

VPDES PERMIT NUMBER:VA0025020

SEWAGE SLUDGE APPLICATION AGREEMENT

This sewage sludge application agreement is made on this date _____ between _____, referred to here as "landowner", and _____, referred to here as the "Permittee".

Landowner is the owner of agricultural land shown on the map attached as Exhibit A and designated there as _____ ("landowner's land"). Permittee agrees to apply and landowner agrees to comply with certain permit requirements following application of sewage sludge on landowner's land in amounts and in a manner authorized by VPDES permit number _____ which is held by the Permittee.

Landowner acknowledges that the appropriate application of sewage sludge will be beneficial in providing fertilizer and soil conditioning to the property. Moreover, landowner acknowledges having been expressly advised that, in order to protect public health, the following site restrictions must be adhered to when sewage sludge receives Class B treatment for pathogen reduction:

1. Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge;

2. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for four months or longer prior to incorporation into the soil;

3. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than four months prior to incorporation into the soil;

4. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge;

5. Animals shall not be grazed on the land for 30 days after application of sewage sludge;

6. Turf grown on land where sewage sludge is applied shall not be harvested for one year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the State Water Control Board;

7. Public access to land with a high potential for public exposure shall be restricted for one year after application of sewage sludge;

8. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.

9. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of sewage sludge borne cadmium equal to or exceeding 0.5 kilograms/hectare (0.45 pounds/acre).

Permittee agrees to notify landowner or landowner's designee of the proposed schedule for sewage sludge application and specifically prior to any particular application to landowner's land. This agreement may be terminated by either party upon written notice to the address specified below.

Landowner:	Permittee:
_____	_____
Signature	Signature
_____	_____
Mailing Address	Mailing Address

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant

VPDES PERMIT NUMBER: VA0025020

SECTION D. SURFACE DISPOSAL

Complete this section only if you own or operate a surface disposal site. Provide the information for each active sewage sludge unit.

1. **Information on Active Sewage Sludge Units. N/A**
   a. Unit name or number:
   b. Unit location
      i. Street or Route#:
      County:
      City or Town: _____ State: _____ Zip:
      ii. Latitude:_____ Longitude:
      Method of latitude/longitude determination
      _____ USGS map _____ Filed survey _____ Other
   c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.
   d. Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period: _____dry metric tons.
   e. Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit: _____ dry metric tons.
   f. Does the active sewage sludge unit have a liner with a minimum hydraulic conductivity of 1×10^{-7}cm/sec? ___Yes ___No If yes, describe the liner or attach a description.

   g. Does the active sewage sludge unit have a leachate collection system? ___Yes ___No
   If "Yes", describe the leachate collection system or attach a description. Also, describe the method used for leachate disposal and provide the numbers of any federal, state or local permits for leachate disposal:

   h. If you answered "No" to either f or g, answer the following:
   Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface disposal site? ___Yes ___No If "Yes", provide the actual distance in meters:
   i. Remaining capacity of active sewage sludge unit, in dry metric tons:_____ dry metric tons
   Anticipated closure date for active sewage sludge unit, if known:_____ (MM/DD/YYYY)
   Provide with this application a copy of any closure plan developed for this active sewage sludge unit.

2. **Sewage Sludge from Other Facilities. N/A**
   Is sewage sludge sent to this active sewage sludge unit from any facilities other than yours? ___Yes ___No
   If "Yes", provide the following information for each such facility, attach additional sheets as necessary.
   a. Facility name:
   b. Facility contact:
   Title:
   Phone: ( )
   c. Mailing address.
   Street or P.O. Box:
   City or Town:_____ State:_____ Zip:
   d. List, on this form or an attachment, the facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the facility's sewage sludge management practices:
   Permit Number: Type of Permit:
   _____
   _____
   e. Which class of pathogen reduction is achieved before sewage sludge leaves the other facility?
   ___Class A ___Class B ___Neither or unknown
   f. Describe, on this form or on another sheet of paper, any treatment processes used at the other facility to reduce pathogens in sewage sludge:

g. Which vector attraction reduction option is achieved before sewage sludge leaves the other facility?
___ Option 1 (Minimum 38 percent reduction in volatile solids)
___ Option 2 (Anaerobic process, with bench-scale demonstration)
___ Option 3 (Aerobic process, with bench-scale demonstration)
___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
___ Option 5 (Aerobic processes plus raised temperature)
___ Option 6 (Raise pH to 12 and retain at 11.5)
___ Option 7 (75 percent solids with no unstabilized solids)
___ Option 8 (90 percent solids with unstabilized solids)
___ None or unknown

h. Describe, on this form or another sheet of paper, any treatment processes used at the other facility to reduce vector attraction properties of sewage sludge:

i. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities performed by the other facility that are not identified in e - h above:

3. Vector Attraction Reduction. N/A

a. Which vector attraction reduction option, if any, is met when sewage sludge is placed on this active sewage sludge unit?
___ Option 9 (Injection below land surface)
___ Option 10 (Incorporation into soil within 6 hours)
___ Option 11 (Covering active sewage sludge unit daily)

b. Describe, on this form or another sheet of paper, any treatment processes used at the active sewage sludge unit to reduce vector attraction properties of sewage sludge:

4. Ground Water Monitoring. N/A

a. Is ground water monitoring currently conducted at this active sewage sludge unit or are ground water monitoring data otherwise available for this active sewage sludge unit? ___Yes ___No
If "Yes", provide a copy of available ground water monitoring data. Also provide a written description of the well locations, the approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.

b. Has a ground water monitoring program been prepared for this active sewage sludge unit?
___Yes ___No If "Yes", submit a copy of the ground water monitoring program with this application.

c. Have you obtained a certification from a qualified ground water scientist that the aquifer below the active sewage sludge unit has not been contaminated? ___Yes ___No
If "Yes", submit a copy of the certification with this application.

5. Site-Specific Limits. N/A

Are you seeking site-specific pollutant limits for the sewage sludge placed on the active sewage sludge unit?
___Yes ___No If "Yes", submit information to support the request for site-specific pollutant limits with this application.

ATTACHMENT A.5

SITE LAYOUT MAP

OLVER
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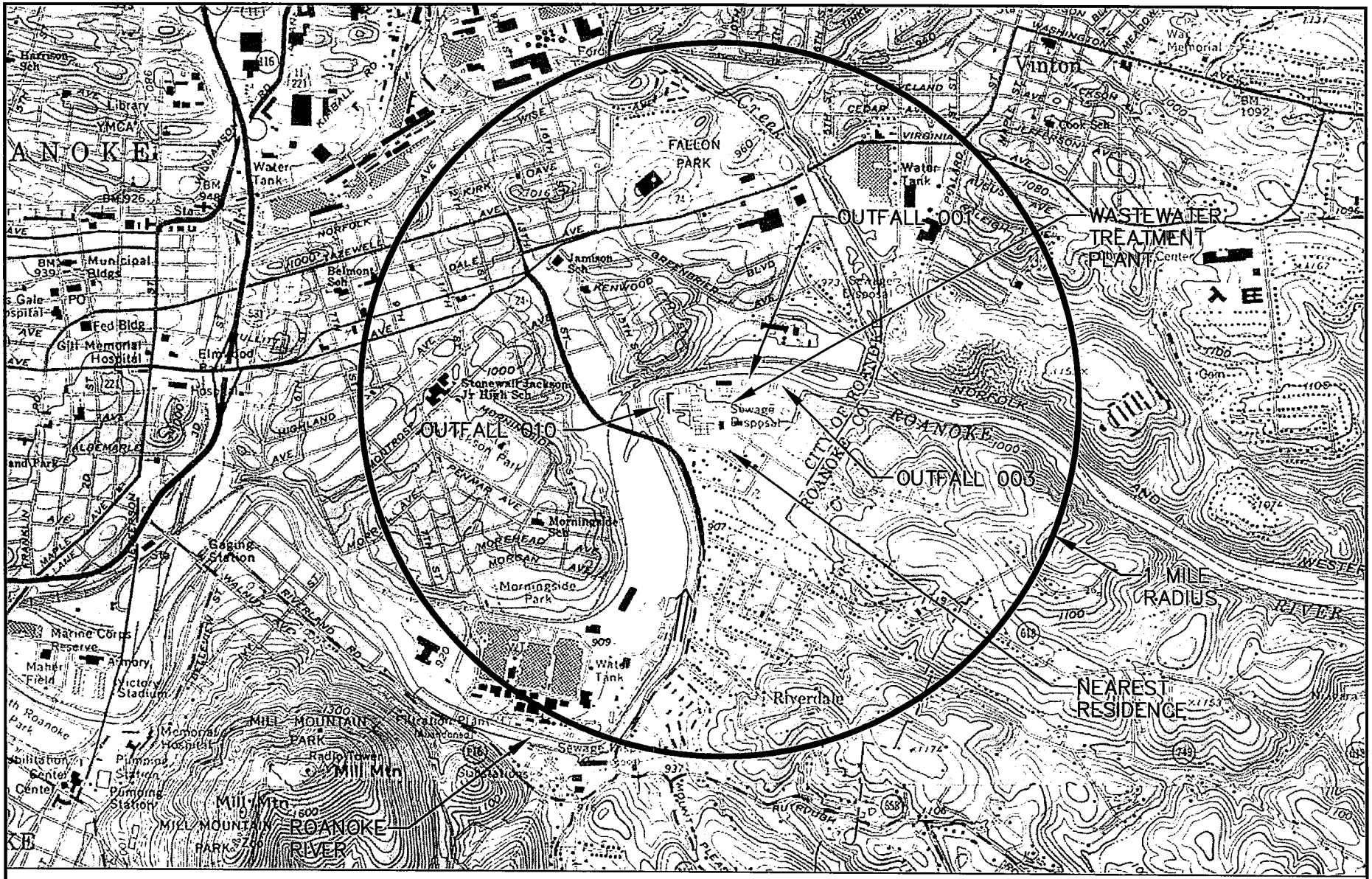


WESTERN VIRGINIA WATER AUTHORITY
WATER POLLUTION CONTROL PLANT
SITE LOCATION MAP

SCALE: 1"=2000'
JOB NO.: 12369

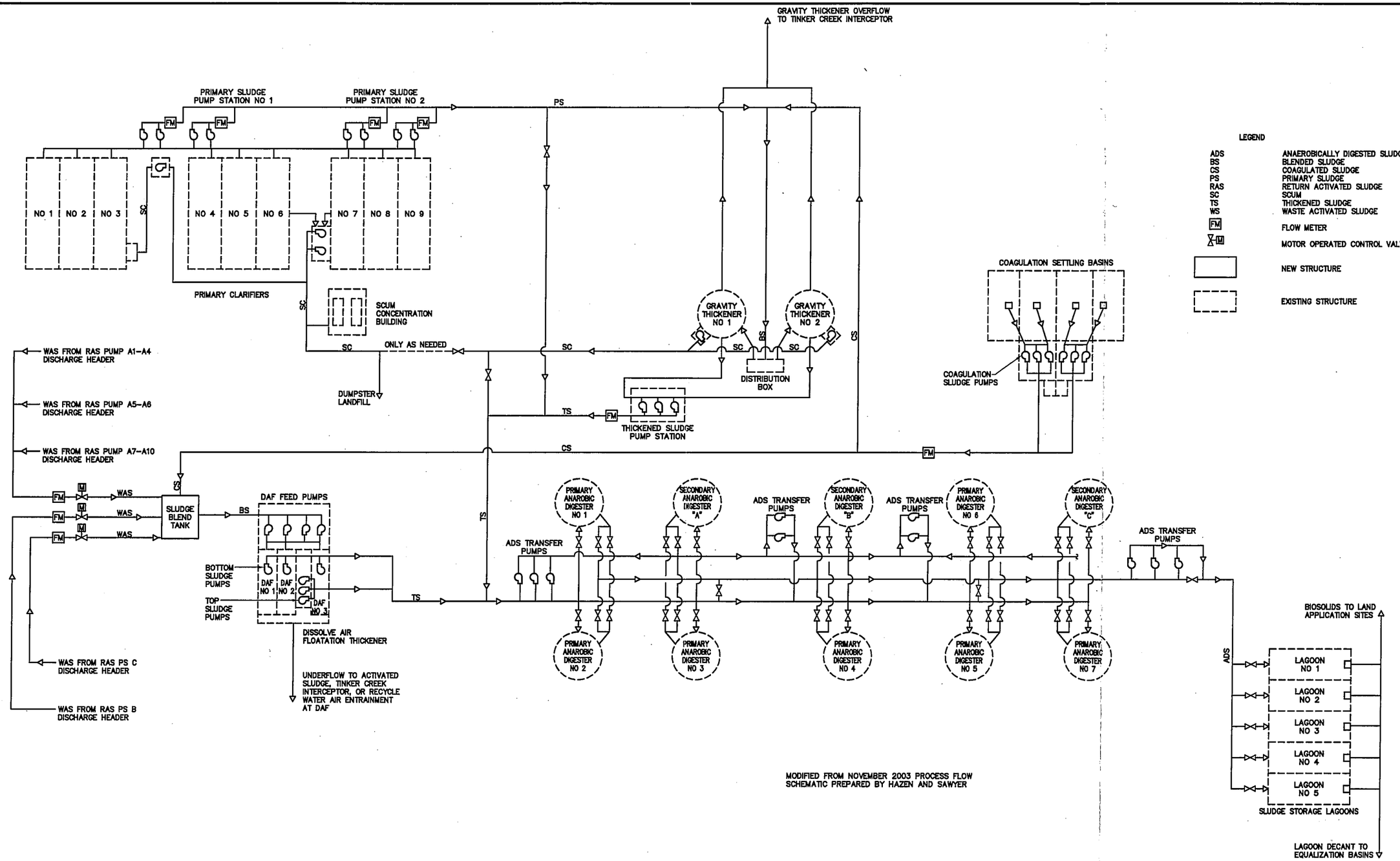
JUNE 2008

OLVER INCORPORATED

ATTACHMENT A.6

SOLIDS FLOW DIAGRAM

OLVER
INCORPORATED



MODIFIED FROM NOVEMBER 2003 PROCESS FLOW SCHEMATIC PREPARED BY HAZEN AND SAWYER

WESTERN VIRGINIA WATER AUTHORITY
WATER POLLUTION CONTROL PLANT
PROCESS FLOW DIAGRAM
SOLIDS TRAIN

SCALE: NO SCALE
JOB NO.: 12369

JUNE 2008

OLVER INCORPORATED

ATTACHMENT A.8

POLLUTANT CONCENTRATIONS

OLVER
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Western Virginia Water Authority
Water Pollution Control Plant
Attachment A.8 Sludge Data

	Pollutant Concentrations (mg/kg)										
Sample Date	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selinium	Zinc	Nitrogen
Dec-04	5.47	3.60	NA	582	117	1.73	27	48	4.45	854	40,300
Jan-05	6.57	3.50	NA	577	122	2.18	21	40	4.85	841	44,000
Feb-05	5.82	3.50	108	657	121	2.10	29	44	4.94	907	45,700
Mar-05	5.82	3.50	108	657	121	2.10	29	44	4.94	907	45,700
Apr-05	6.13	3.70	NA	600	131	1.78	26	45	4.95	765	28,600
May-05	4.85	2.80	145	526	119	1.82	24	50	4.24	753	40,100
Jun-05	3.86	3.50	NA	536	101	1.60	24	42	3.65	761	49,400
Jul-05	3.37	3.00	NA	560	116	1.53	22	44	3.47	764	50,700
Aug-05	5.71	3.30	NA	601	105	2.27	22	37	4.77	762	47,300
Sep-05	6.38	3.20	118	604	109	1.72	26	46	5.20	855	40,400
Oct-05	6.38	3.20	118	604	109	1.72	26	46	5.20	855	40,400
Nov-05	6.69	25.20	135	676	156	2.19	36	39	3.91	931	23,100
Jan-06	6.57	3.50	NA	577	122	2.18	21	40	4.85	841	44,000
Feb-06	5.86	2.00	NA	555	90	1.86	19	36	4.16	797	35,500
Mar-06	6.70	2.00	NA	577	85	1.40	16	31	5.10	770	42,500
Apr-06	7.70	4.00	NA	665	138	2.70	20	41	4.40	908	34,700
May-06	5.50	5.00	NA	444	62	1.30	13	28	3.80	637	30,200
Jun-06	5.00	1.00	NA	506	73	1.20	18	32	3.30	770	44,400
Jul-06	7.10	3.00	NA	647	111	1.30	24	46	1.30	945	41,600
Aug-06	5.20	2.00	118	552	108	1.00	19	40	3.30	809	38,600
Sep-06	7.50	6.00	158	685	163	2.40	21	49	4.50	960	32,700
Oct-06	7.10	4.00	NA	625	115	1.60	23	38	5.30	859	68,000
Nov-06	6.30	4.00	NA	556	105	1.40	20	37	4.90	793	39,900
Dec-06	7.20	3.00	NA	629	102	1.60	23	40	5.60	868	42,000
Jan-07	6.70	3.00	NA	559	93	1.40	20	37	4.90	793	48,800
Feb-07	6.80	1.00	NA	180	30	0.50	<5	23	2.00	305	13,600
Mar-07	6.90	3.00	NA	569	116	2.10	23	38	5.50	833	38,300
Apr-07	6.10	3.00	NA	640	107	1.60	17	52	5.00	814	37,800
May-07	6.00	4.00	NA	630	113	2.80	20	43	5.10	865	84,900
Jun-07	6.30	4.00	130	670	113	2.00	27	48	4.00	998	55,400
Jul-07	5.50	3.00	NA	605	102	1.50	24	41	4.30	889	45,400
Aug-07	7.60	2.20	NA	797	43	1.50	15	51	6.00	1070	41,500
Sep-07	7.70	<5	NA	555	98	1.30	18	29	3.00	915	41,300
Oct-07	10.20	<5	NA	586	104	2.40	25	37	<1	879	37,500
Nov-07	7.60	9.60	NA	340	59	1.30	17	64	<1	540	22,000
Dec-07	10.10	<5	NA	598	97	1.70	26	40	<1	789	30,200
Jan-08	8.50	3.00	NA	632	97	1.40	19	28	1.00	36	41,300
Feb-08	8.00	3.40	NA	627	96	1.40	21	28	1.10	942	39,600
Average	6.55	4.02	126	584	104	1.73	22	41	4.20	805	41,247

Notes: 1. Detection levels vary based on solids concentrations.
2. NA indicates not analyzed
3. Detection limit indicated as "less than" (<) values for those parameters not detected during analysis.

ATTACHMENT B.2

SLUDGE PROVIDERS

OLVER
INCORPORATED

FACILITY NAME:_____ VPDES PERMIT NUMBER:_____

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. Amount Generated On Site.
   Total dry metric tons per 365-day period generated at your facility: 1.573 dry metric tons

2. Amount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
   a. Facility name: Town of Buchanan
   b. Contact Person: Tom Middlecamp, Mayor
      Title: Mayor
      Phone (540) 254-1212
   c. Mailing address:
      Street or P.O. Box: P. O. Box 205
      City or Town: Buchanan State: Va Zip: 24066
   d. Facility Address: Route 43, Buchanan
      (not P.O. Box)
   e. Total dry metric tons per 365-day period received from this facility: 1.573 dry metric tons
   f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics: Sludge would be from the digester, 1.6% – 1.7% solids

3. Treatment Provided at Your Facility.
   a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
      ___Class A ___Class B ___Neither or unknown
   b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge:_____
   c. Which vector attraction reduction option is met for the sewage sludge at your facility?
      ___ Option 1 (Minimum 38 percent reduction in volatile solids)
      ___ Option 2 (Anaerobic process, with bench-scale demonstration)
      ___ Option 3 (Aerobic process, with bench-scale demonstration)
      ___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
      ___ Option 5 (Aerobic processes plus raised temperature)
      ___ Option 6 (Raise pH to 12 and retain at 11.5)
      ___ Option 7 (75 percent solids with no unstabilized solids)
      ___ Option 8 (90 percent solids with unstabilized solids)
      ___ None or unknown
   d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge:_____
   e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above:_____

4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge).
   (If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)
   a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land: _____ dry metric tons
   b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away?

Estimated volume for Town of Buchanan is 3,000 gallons every six weeks. Lime treated sludge from digester, 1.6% to 1.7% solids).

52 weeks ÷ 6 weeks = 8.666

3,000 gals × 8.666 = 26,000 gals / year

$$\frac{26{,}000\ \text{gals}}{\text{yr.}} \times \frac{8.34\ \text{lbs}}{\text{gal}} \times \frac{\text{tons}}{2{,}000\ \text{lbs}} \times 0.016 =$$

$$\frac{1.735\ \text{tons}}{\text{year}} \times .907 = \frac{1.573\ \text{dry Metric}}{\text{year}}$$

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant
VPDES PERMIT NUMBER: VA0025020

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. **Amount Generated On Site.**
Total dry metric tons per 365-day period generated at your facility: **5,673** dry metric tons

2. **Amount Received from Off Site.** If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
   a. Facility name: **Red Oak Manor STP**
   b. Contact Person: **Patty Toler**
      Title: **Administrator**
      Phone **(540) 482-0980**
   c. Mailing address:
      Street or P.O. Box: **P.O. Box 1157**
      City or Town: **Rocky Mount** State: **VA** Zip: **24151**
   d. Facility location: **18630 Virgil Goode Highway (RT 220)**
      (not P.O. Box) **Rocky Mount, VA 24151**
   e. Total dry metric tons per 365-day period received from this facility: **11.35** dry metric tons
   f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics: **Stored in an aerated sludge holding tank to maintain 6.0 min. D.O.; Minimal dewatering through decant of supernatant with 2% solids.**

3. **Treatment Provided at Your Facility.**
   a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
      ___Class A **X** Class B ___Neither or unknown
   b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: **Anaerobic Digestion**

   c. Which vector attraction reduction option is met for the sewage sludge at your facility?
      X Option 1 (Minimum 38 percent reduction in volatile solids)
      ___ Option 2 (Anaerobic process, with bench-scale demonstration)
      ___ Option 3 (Aerobic process, with bench-scale demonstration)
      ___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
      ___ Option 5 (Aerobic processes plus raised temperature)
      ___ Option 6 (Raise pH to 12 and retain at 11.5)
      ___ Option 7 (75 percent solids with no unstabilized solids)
      ___ Option 8 (90 percent solids with unstabilized solids)
      ___ None or unknown

   d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: **Anaerobic Digestion**

   e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: **NA**

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant
VPDES PERMIT NUMBER: VA0025020

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. **Amount Generated On Site.**
Total dry metric tons per 365-day period generated at your facility: **5,673** dry metric tons

2. **Amount Received from Off Site.** If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
   a. Facility name: **Catawba Hospital VA Department of Mental Health**
   b. Contact Person: **Frank Garman**
      Title: **Building and Grounds Superintendent**
      Phone (**540**) **375-4332**
   c. Mailing address:
      Street or P.O. Box: **P.O. Box 200**
      City or Town: **Catawba** State: **VA** Zip: **24070**
   d. Facility location: **5525 Catawba Hospital**
      (not P.O. Box)
   e. Total dry metric tons per 365-day period received from this facility: **393** dry metric tons
   f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics: **None**

3. **Treatment Provided at Your Facility.**
   a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
      ___Class A _X_Class B ___Neither or unknown
   b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: **Anaerobic Digestion**

   c. Which vector attraction reduction option is met for the sewage sludge at your facility?
      _X_ Option 1 (Minimum 38 percent reduction in volatile solids)
      ___ Option 2 (Anaerobic process, with bench-scale demonstration)
      ___ Option 3 (Aerobic process, with bench-scale demonstration)
      ___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
      ___ Option 5 (Aerobic processes plus raised temperature)
      ___ Option 6 (Raise pH to 12 and retain at 11.5)
      ___ Option 7 (75 percent solids with no unstabilized solids)
      ___ Option 8 (90 percent solids with unstabilized solids)
      ___ None or unknown

   d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: **Anaerobic Digestion**

   e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: **NA**

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant
VPDES PERMIT NUMBER: VA0025020

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. **Amount Generated On Site.**
Total dry metric tons per 365-day period generated at your facility: **5,673** dry metric tons

2. **Amount Received from Off Site.** If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
   a. Facility name: **Camp Virginia Jaycee, Inc.**
   b. Contact Person: **Dana Meyer**
      Title: **Facility Manger**
      Phone (**540**) **947-2972**
   c. Mailing address:
      Street or P.O. Box: **P.O. Box 648**
      City or Town: **Blue Ridge** State: **VA** Zip: **24064**
   d. Facility location: **2494 Camp Jaycee Road**
      (not P.O. Box) **Blue Ridge, VA**
   e. Total dry metric tons per 365-day period received from this facility: **2.0** dry metric tons
   f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics: **None**

3. **Treatment Provided at Your Facility.**
   a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
      ___Class A _X_ Class B ___Neither or unknown
   b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: **Anaerobic Digestion**

   c. Which vector attraction reduction option is met for the sewage sludge at your facility?
      _X_ Option 1 (Minimum 38 percent reduction in volatile solids)
      ___ Option 2 (Anaerobic process, with bench-scale demonstration)
      ___ Option 3 (Aerobic process, with bench-scale demonstration)
      ___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
      ___ Option 5 (Aerobic processes plus raised temperature)
      ___ Option 6 (Raise pH to 12 and retain at 11.5)
      ___ Option 7 (75 percent solids with no unstabilized solids)
      ___ Option 8 (90 percent solids with unstabilized solids)
      ___ None or unknown

   d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: **Anaerobic Digestion**

   e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: **NA**

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant
VPDES PERMIT NUMBER: VA0025020

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. **Amount Generated On Site.**
   Total dry metric tons per 365-day period generated at your facility: **5,673** dry metric tons

2. **Amount Received from Off Site.** If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
   a. Facility name: **Whites Truck Stop**
   b. Contact Person: **Tony Harvey**
      Title: **Head of Maintenance**
      Phone (**540**) **377-2111**
   c. Mailing address:
      Street or P.O. Box: **I-81 & I-64**
      City or Town: **Raphine** State: **VA** Zip: **24472**
   d. Facility location: **I-81 & I-64**
      (not P.O. Box)
   e. Total dry metric tons per 365-day period received from this facility: **1.5** dry metric tons
   f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics: **None**

3. **Treatment Provided at Your Facility.**
   a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
      ___Class A **X** Class B ___Neither or unknown
   b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: **Anaerobic Digestion**

   c. Which vector attraction reduction option is met for the sewage sludge at your facility?
      X Option 1 (Minimum 38 percent reduction in volatile solids)
      ___ Option 2 (Anaerobic process, with bench-scale demonstration)
      ___ Option 3 (Aerobic process, with bench-scale demonstration)
      ___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
      ___ Option 5 (Aerobic processes plus raised temperature)
      ___ Option 6 (Raise pH to 12 and retain at 11.5)
      ___ Option 7 (75 percent solids with no unstabilized solids)
      ___ Option 8 (90 percent solids with unstabilized solids)
      ___ None or unknown

   d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: **Anaerobic Digestion**

   e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: **NA**

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant
VPDES PERMIT NUMBER: VA0025020

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. **Amount Generated On Site.**
   Total dry metric tons per 365-day period generated at your facility: **5,673** dry metric tons

2. **Amount Received from Off Site.** If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
   a. Facility name: **Woodhaven Nursing Home - STP**
   b. Contact Person: **David F. Graves**
      Title: **President**
      Phone (**540**) **947-2207**
   c. Mailing address:
      Street or P.O. Box: **US Route 460 West P.O. Box 168**
      City or Town: **Montvale** State: **VA** Zip: **24122-0168**
   d. Facility location: **13055 West Lynchburg – Salem Turnpike**
      (not P.O. Box) **Montvale, VA 24122-0168**
   e. Total dry metric tons per 365-day period received from this facility: **3.65** dry metric tons
   f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics: **None**

3. **Treatment Provided at Your Facility.**
   a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
      ___Class A _X_ Class B ___Neither or unknown
   b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: **Anaerobic Digestion**

   c. Which vector attraction reduction option is met for the sewage sludge at your facility?
      _X_ Option 1 (Minimum 38 percent reduction in volatile solids)
      ___ Option 2 (Anaerobic process, with bench-scale demonstration)
      ___ Option 3 (Aerobic process, with bench-scale demonstration)
      ___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
      ___ Option 5 (Aerobic processes plus raised temperature)
      ___ Option 6 (Raise pH to 12 and retain at 11.5)
      ___ Option 7 (75 percent solids with no unstabilized solids)
      ___ Option 8 (90 percent solids with unstabilized solids)
      ___ None or unknown

   d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: **Anaerobic Digestion**

   e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: **NA**

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant
VPDES PERMIT NUMBER: VA0025020

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. **Amount Generated On Site.**
Total dry metric tons per 365-day period generated at your facility: **5,673** dry metric tons

2. **Amount Received from Off Site.** If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
   a. Facility name: **Oak Hill Academy**
   c. Contact Person: **Beth Bunn**
   Title: **Administrative Assistant**
   Phone **276-579-2619**
   c. Mailing address:
   Street or P.O. Box: **2635 Oak Hill Road**
   City or Town: **Mouth of Wilson** State: **VA** Zip: **24363**
   d. Facility location: **2635 Oak Hill Road**
   (not P.O. Box) **Mouth of Wilson, VA 24363**
   e. Total dry metric tons per 365-day period received from this facility: **94.55** dry metric tons
   f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics: **None**

3. **Treatment Provided at Your Facility.**
   a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
   ___Class A X Class B ___Neither or unknown
   b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: **Anaerobic Digestion**

   c. Which vector attraction reduction option is met for the sewage sludge at your facility?
   X Option 1 (Minimum 38 percent reduction in volatile solids)
   ___ Option 2 (Anaerobic process, with bench-scale demonstration)
   ___ Option 3 (Aerobic process, with bench-scale demonstration)
   ___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
   ___ Option 5 (Aerobic processes plus raised temperature)
   ___ Option 6 (Raise pH to 12 and retain at 11.5)
   ___ Option 7 (75 percent solids with no unstabilized solids)
   ___ Option 8 (90 percent solids with unstabilized solids)
   ___ None or unknown

   d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: **Anaerobic Digestion**

e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: **NA**

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant
VPDES PERMIT NUMBER: VA0025020

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. **Amount Generated On Site.**
Total dry metric tons per 365-day period generated at your facility: **5,673** dry metric tons

2. **Amount Received from Off Site.** If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
   a. Facility name: **Roanoke Cement**
   d. Contact Person: **Lance Clark**
   Title: **Environmental Engineer**
   Phone: **540-966-6854**
   c. Mailing address:
   Street or P.O. Box: **6071 Catawba Rd.**
   City or Town: **Troutville** State: **VA** Zip: **24175**
   d. Facility location: **6071 Catawba Rd.**
   (not P.O. Box)
   e. Total dry metric tons per 365-day period received from this facility: **37.82** dry metric tons
   f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics: **None**

3. **Treatment Provided at Your Facility.**
   a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
   ___Class A **X** Class B ___Neither or unknown
   b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: **Anaerobic Digestion**

   c. Which vector attraction reduction option is met for the sewage sludge at your facility?
   X Option 1 (Minimum 38 percent reduction in volatile solids)
   ___ Option 2 (Anaerobic process, with bench-scale demonstration)
   ___ Option 3 (Aerobic process, with bench-scale demonstration)
   ___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
   ___ Option 5 (Aerobic processes plus raised temperature)
   ___ Option 6 (Raise pH to 12 and retain at 11.5)
   ___ Option 7 (75 percent solids with no unstabilized solids)
   ___ Option 8 (90 percent solids with unstabilized solids)
   ___ None or unknown

   d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: **Anaerobic Digestion**

   e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: **NA**

FACILITY NAME: Western Virginia Water Authority Water Pollution Control Plant
VPDES PERMIT NUMBER: VA0025020

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. **Amount Generated On Site.**
Total dry metric tons per 365-day period generated at your facility: **5,673** dry metric tons

2. **Amount Received from Off Site.** If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
   a. Facility name: **Blacksburg Country Club Sewage Treatment Plant**
   e. Contact Person: **Diana T. Reynolds**
   Title: **Superintendent**
   Phone: **540-989-3653**
   c. Mailing address: **B&J Enterprises, LC.**
   Street or P.O. Box: **3807 Brandon Avenue, S.W. Suite 45**
   City or Town: **Roanoke** State: **VA** Zip: **24018**
   d. Facility location: **Route 723 Montgomery County**
   (not P.O. Box) **Blacksburg, VA**
   e. Total dry metric tons per 365-day period received from this facility: **110.2** dry metric tons
   f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics: **None**

3. **Treatment Provided at Your Facility.**
   a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
   ___Class A **X** Class B ___Neither or unknown
   b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: **Anaerobic Digestion**

   c. Which vector attraction reduction option is met for the sewage sludge at your facility?
   X Option 1 (Minimum 38 percent reduction in volatile solids)
   ___ Option 2 (Anaerobic process, with bench-scale demonstration)
   ___ Option 3 (Aerobic process, with bench-scale demonstration)
   ___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
   ___ Option 5 (Aerobic processes plus raised temperature)
   ___ Option 6 (Raise pH to 12 and retain at 11.5)
   ___ Option 7 (75 percent solids with no unstabilized solids)
   ___ Option 8 (90 percent solids with unstabilized solids)
   ___ None or unknown

   d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: **Anaerobic Digestion**

   e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: **NA**

ATTACHMENT C.1-2

LAND APPLICATION SITES

OLVER
INCORPORATED

Attachment C.1-2
Western Virginia Water Pollution Control Plant
VPDES Sludge Permit Application
Section C Parts 1 and 2

County / Permit #	Farmer	Field Designation	Permit Acres	Latitude	Longitude
Franklin / VDHBUR79	Mike Altice 130 Landmark Rd. Wirtz, VA 24184 540-721-2062	RO3-1	64.1	37° 7' 7.17"	79° 49' 24.06"
		RO3-2	50	37°5' 36.92"	79° 47' 42.95"
		RO3-4	9	37° 5' 50.97"	79° 47' 41.10"
		RO3-1A	37.6	37° 6' 35.70"	79° 48' 49.65"
		RO3-2A	9.75	37° 6' 3.24"	79° 48' 36.65"
		RO3-5	8	37° 6' 26.50"	79° 48' 34.53"
		RO3-6	6.6	37° 6' 38.27"	79° 48' 27.16"
		RO3-8	6	37° 6' 32.03"	79° 48' 23.39"
		RO3-9	32.4	37° 6' 37.98"	79° 48' 18.60"
		RO3-10	39.5	37° 6' 38.69"	79° 48' 78.39"
		RO3-12	41.1	37° 6' 10.91"	79° 48' 12.07"
		RO3-14	4.8	37° 6' 22.32"	79° 48' 22.01"
		RO3-15	4	37° 6' 30.96"	79° 48' 1.10"
Franklin / VDHBUR79	William Truman 592 Poteet Rd. Witrz, VA 24184 540-721-2141	RO5-1	42.3	37° 7' 28.08"	79° 49' 10.31"
		RO5-2	52.5	37° 7' 23.73"	79° 49' 13.24"
Franklin / VDHBUR79	Gary Dudley 230 Chestnut Hill Rd. Rocky Mount, VA 24151 540-483-1387	RO8-1	28.3	36° 59' 56.92"	79° 48' 46.72"
		RO8-2	69.5	36° 55' 5.80"	79° 53' 4.72"
		RO8-3	9.8	36° 57' 20.51"	79° 48' 19:22"
		RO8-4	22.7	36° 57' 38.64"	79° 48' 12.29"
		RO8-5	16.2	36° 57' 57.13	79° 48' 2.75"
		RO8-6	12.2	36° 57' 32.80	79° 47' 27.79"
		RO8-7	10.4	36° 57' 49.19"	79° 47' 37.95"
		RO8-8A	15.7	36° 57' 44.91"	79° 46' 32.38"
		RO8-8B	16.1	36° 57' 44.91"	79° 46' 32.38"
		RO8-9A	8.9	36° 56' 18.88"	79° 45' 43.88"
		RO8-9B	10.0	36° 56' 18.88"	79° 45' 43.88"
		RO8-10	23.9	36° 59' 36.98"	79° 52' 12.32"
		RO8-11	7.6	36° 59' 46.08"	79° 50' 18.05"
		RO8-12	25.2	36° 59' 49.45"	79° 50' 4.12"
Franklin / VDHBUR79	Bill English 478 Providence Church Rd. Henry, VA 24102 276-629-1447	RO9-1	42.9	36° 55' 23.94"	79° 48' 42.84"
		RO9-2	38.3	36° 55' 30.14"	79° 49' 19.78"
		RO9-3	26.4	36° 55' 32.63"	79° 49' 6.23"
		RO9-4	19.0	36° 55' 42.44"	79° 48' 57.92"
		RO9-5	24.8	36° 55' 50.29"	79° 48' 59.53"
Franklin / VDHBUR79	Noel Parcell 1526 Edgewood Rd. Rocky Mount, VA 24151 540-483-1028	RO12-1	9.3	36° 56' 50.21"	79° 48' 14.95"
		RO12-2A	20.0	36° 56' 58.03"	79° 48' 26.18"
		RO12-2B	5.5	36° 56' 58.03"	79° 48' 26.18"
		RO12-3	13.5	36° 57' 15.29"	79° 49' 2.06"
		RO12-10	16.5	36° 57' 29.57"	79° 48' 58.48"
		RO12-11	9.0	36° 57' 7.23"	79° 48' 48.01"
		RO12-12A	76.3	36° 56' 56.43"	79° 49' 2.02"
		RO12-12B	5.5	36° 56' 56.43"	79° 49' 2.02"
		RO12-13	27.9	36° 56' 20.05"	79° 48' 47.62"
		RO12-14	15.3	36° 57' 26.87"	79° 48' 50.82"
		RO12-15	11.7	36° 57' 12.64"	79° 48' 45.96"

Attachment C.1-2
Western Virginia Water Pollution Control Plant
VPDES Sludge Permit Application
Section C Parts 1 and 2

County / Permit #	Farmer	Field Designation	Permit Acres	Latitude	Longitude
Franklin / VDHBUR79	William Helms 310 Knollwood Dr. Rocky Mount, VA 24151 540-483-1128	RO13-1	28.3	36° 55' 52.54"	79° 53' 43.00"
Franklin / VDHBUR79	Byron Brooks 975 Ayers Rd. Glade Hill, VA 24092 540-483-2163	RO18-1	38.2	37° 1' 14.36"	79° 46' 32.44"
		RO18-2	42.6	37° 00' 43.66"	79° 46' 46.94"
		RO18-3	33.8	37° 3' 18.56"	79° 46' 0.16"
Bedford / VDHBUR114	W.W. Nance 2237 Hardy Road Vinton, VA 24179 540-890-5570	RO24-1	8.9	37° 12' 43.45"	79° 35' 34.86"
		RO24-2	6.5	37° 12' 29.92"	79° 35' 26.98"
		RO24-3	5.6	37° 12' 58.23"	79° 35' 47.38"
		RO24-7	42.9	37° 10' 17.65"	79° 35' 51.98"
		RO24-8	33.0	37° 10' 14.17"	79° 35' 44.42"
		RO24-9	6.4	37° 10' 8.96"	79° 35' 29.90"
Bedford / VDHBUR114	W.D. Watson 3658 Rukee Rd Moneta, VA 24121 540-297-4312	RO25-1	36.2	37° 12' 7.45"	79° 37' 3.42"
		RO25-2	27.6	37° 11' 49.45"	79° 36' 48.90"
		RO25-3	27.9	37° 12' .87"	79° 36' 42.56"
Bedford / VDHBUR114	Winston Robertson 1089 Howell Ride Ln. Vinton, VA 24179 540-890-2440	RO27-6	25.8	37° 12' 51.16"	79° 36' 40.80"
Franklin / VDHBUR79	Edgar Morris 1465 Sontag Rd. Rocky Mount, VA 24151 540-482-0610	RO29-1A	13.6	36° 56' 51.26"	79° 51' 20.84"
		RO29-1B	4.1	36° 56' 57.87"	79° 51' 13.08"
		RO29-2	5.9	36° 56' 44.71"	79° 51' 16.31"
Franklin / VDHBUR79	Brenda Tyree 835 Marcus Rd. Rocky Mount, VA 24151 540-483-4365	RO29-5	65.8	36° 56' 45.70"	79° 46' 32.38"
		RO29-6	45.4	36° 56' 30.49"	79° 46' 29.70"
		RO29-7	36.2	36° 56' 16.73"	79° 46' 43.33"
Franklin / VDHBUR79	Brenda Tyree 835 Marcus Rd. Rocky Mount, VA 24151 540-483-4365	RO39-1	9.6	36° 56' 4.65"	79° 43' 32.31"
		RO39-2	5.2	36° 56' 11.09"	79° 43' 33.45"
		RO39-3	6.5	36° 56' 15.09"	79° 43' 32.50"
		RO39-4	4.2	36° 56' 16.68"	79° 43' 41.24"
		RO39-5	31.2	36° 56' 21.59"	79° 43' 27.93"
Franklin / VDHBUR79	Van Flora 388 Buzzard Rock Ln. Rocky Mount, VA 24151 540-483-4242	RO40-1	22.70	37° 03' 33.33"	80° 05' 12.06"
		RO40-3	25.70	37° 02' 22.70"	80° 04' 58.12"
		RO40-4	10.30	37° 02' 40.00"	79° 59' 47.91"
		RO40-5	18.30	37° 02' 49.82"	79° 59' 40.50"

Attachment C.1-2
Western Virginia Water Pollution Control Plant
VPDES Sludge Permit Application
Section C Parts 1 and 2

County / Permit #	Farmer	Field Designation	Permit Acres	Latitude	Longitude
Franklin / VDHBUR79	John Bowman 2332 Stallion Circle Roanoke, VA 24018 540-774-6304	RO41-1	9.20	37° 02' 49.82"	79° 59' 40.50"
		RO41-2	5.80	37° 02' 49.82"	79° 59' 40.50"
		RO41-3	9.60	37° 02' 49.82"	79° 59' 40.50"
		RO41-4	7.00	37° 02' 49.82"	79° 59' 40.50"
		RO41-5	5.40	37° 02' 49.82"	79° 59' 40.50"
		RO41-6	3.40	37° 02' 49.82"	79° 59' 40.50"
		RO41-7	7.20	37° 02' 49.82"	79° 59' 40.50"
		RO41-8	7.60	37° 02' 49.82"	79° 59' 40.50"
Franklin / VDHBUR79	Glenn Clingenpeel 485 Bethelehem Rd. Boones Mill, VA 24065 540-483-4312	RO43-1	10.70	37° 03' 17.00"	80° 01' 12.84"
		RO43-2	13.30	37° 03' 19.04"	80° 01' 19.31"
		RO43-3	20.30	37° 03' 19.62"	80° 01' 26.80"
		RO43-4	5.40	37° 02' 59.52"	80° 01' 09.16"
		RO43-5	39.70	37° 03' 01.16"	80° 00' 53.92"
Bedford / VDHBUR114	Jackie Preston 6257 Smith Mtn Lake Pkwy Huddleston, VA 24104 540-297-4085	RO44-1	14.74	37° 09' 20.24"	79° 29' 48.38"
		RO44-2	9.40	37° 09' 09.09"	79° 29' 55.22"
		RO44-3	2.65	37° 09' 11.26"	79° 29' 59.33"
		RO44-4	4.40	37° 09' 16.13"	79° 29' 56.50"
		RO44-5	4.12	37° 09' 2028"	79° 29' 52.69"
		RO44-6	26.83	37° 09' 34.59"	79° 30' 43.94"
		RO44-7	29.14	37° 09' 47.69"	79° 30' 28.91"
		RO44-8	2.28	37° 09' 48.38"	79° 30' 35.09"
		RO44-9	2.38	37° 09' 56.13"	79° 30' 22.23"
		RO44-10	79.75	37° 09' 26.94"	79° 30' 36.77"
		RO44-11	36.23	37° 09' 18.70"	79° 30' 16.25"
		RO44-12	12.99	37° 09' 38.80"	79° 29' 35.01"
		RO44-13	34.68	37° 09' 44.77"	79° 29' 25.99"
		RO44-14	35.93	37° 09' 53.08"	79° 29' 39.84"
Bedford / VDHBUR114	Mark Wagner 5068 Dundee Rd Huddleston, VA 24104 540-537-1374	RO45-1	8.84	37° 09' 34.91"	79° 31' 01.62"
		RO45-2	19.64	37° 09' 52.00"	79° 31' 02.08"
		RO45-3	4.06	37° 05' 51.64"	79° 31' 26.28"
		RO45-4	5.97	37° 05' 41.64"	79° 31' 28.98"
		RO45-5	6.26	37° 05' 32.29"	79° 31' 29.57"
		RO45-6	15.64	37° 05' 34.03"	79° 31'18.10"
		RO45-7	10.49	37° 05' 42.88"	79° 31' 14.25"
		RO45-8	5.38	37° 05' 44.45"	79° 31' 04.93"
		RO45-9	13.27	37° 05' 31.43"	79° 31' 04.44"
		RO45-10	8.23	37° 05' 36.27"	79° 31' 00.43"
		RO45-11	9.88	37° 05' 31.57"	79° 30' 49.89"
		RO45-12	4.48	37° 05' 39.49"	79° 30' 48.04"
		RO45-13	71.51	37° 05' 56.55"	79° 31' 02.42"
		RO45-14	6.36	37° 06' 06.05"	79° 31' 19.57"
		RO45-15	32.63	37° 06' 12.04"	79° 30' 58.40"
		RO45-16	4.67	37° 09' 20.08"	79° 31' 01.65"
		RO45-17	7.45	37° 09' 09.67"	79° 31' 07.24"
		RO45-18	37.35	37° 09' 12.36"	79° 30' 55.89"
		RO45-19	15.32	37° 09' 39.79"	79° 35' 48.52"
		RO45-20	21.65	37° 09'52.74"	79° 35' 22.76"
		RO45-21	3.04	37° 09' 58.14"	79° 35' 29.62"
		RO45-22	60.33	37° 09' 47.77"	79° 35' 41.66"
		RO45-23	16.40	37° 06' 12.14"	79° 29' 57.72"
		RO45-24	43.16	37° 06' 01.16"	79° 29' 49.21"
		RO45-25	8.40	37° 06' 00.85"	79° 29' 40.15"
		RO45-26	0.00	37° 06' 13.80"	79° 29' 45.01"

Attachment C.1-2
Western Virginia Water Pollution Control Plant
VPDES Sludge Permit Application
Section C Parts 1 and 2

County / Permit #	Farmer	Field Designation	Permit Acres	Latitude	Longitude
Franklin / VDHBUR79	Ronald Walker 7364 Snow Creel Rd. Penhook, VA 24137 540-576-4999	RO46-1	7.12	36° 51' 08.40"	79° 43' 52.73"
		RO46-2	13.72	36° 51' 04.35"	79° 44' 03.83"
		RO46-3	4.38	36° 51'14.12"	79° 44' 13.19"
		RO46-4	11.66	36° 51' 19.49"	79° 44' 03.63"
		RO46-5	3.96	36° 51' 18.32"	79° 43' 51.55"
		RO46-6	6.52	36° 51' 11.31"	79° 43' 47.04"
		RO46-7	6.63	36° 51' 12.96"	79° 43' 37.90"
		RO46-8	62.36	36° 51' 03.25"	79° 43' 18.23"
		RO46-9	22.36	36° 50' 35.71"	79° 43' 06.36"
		RO46-10	6.02	36° 50' 41.45"	79° 42' 59.07"
		RO46-11	12.38	36° 50' 51.89"	79° 42' 48.47"
		RO46-12	21.89	36° 50' 57.97"	79° 42' 40.13"
		RO46-13	6.99	36° 51' 08.39"	79° 42' 29.31"
		RO46-14	14.31	36° 51' 08.10"	79° 42' 37.84"
		RO46-15	5.8	36° 51' 15.12"	79° 42' 39.67"
		RO46-16	33.38	36° 50' 44.74"	79° 42' 29.46"
Franklin / VDHBUR79	James Campbell 131 Campbell Rd. Penhook, VA 24137 540-576-2634	RO47-1	21.93	36° 53' 29.07"	79° 39' 17.98"
		RO47-2	40.66	36° 53' 17.29"	79° 38' 44.70"
		RO47-3	17.09	36° 52' 53.00"	79° 38' 39.54"
		RO47-4	10.41	36° 52' 22.34"	79° 38' 28.47"
		RO47-5	57.8	36° 52' 03.55"	79° 38' 28.53"
		RO47-6	4	36° 53' 40.72"	79° 38' 59.39"
		RO47-7	16.19	36° 53' 10.04"	79° 39' 40.85"
		RO47-8	6.34	36° 53' 04.59"	79° 39' 53.36"
		RO47-9	12.1	36° 53' 10.69"	79° 39' 55.89"